

OUTLOOK

21 August 2019



Contacts

Benjamin Nelson +1.212.553.2981
VP-Sr Credit Officer
 benjamin.nelson@moodys.com

Glenn B. Eckert, CFA +1.212.553.1618
Associate Managing Director
 glenn.eckert@moodys.com

Dawei Ma, CFA, ACA +1.212.553.6094
Associate Analyst
 dawei.ma@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

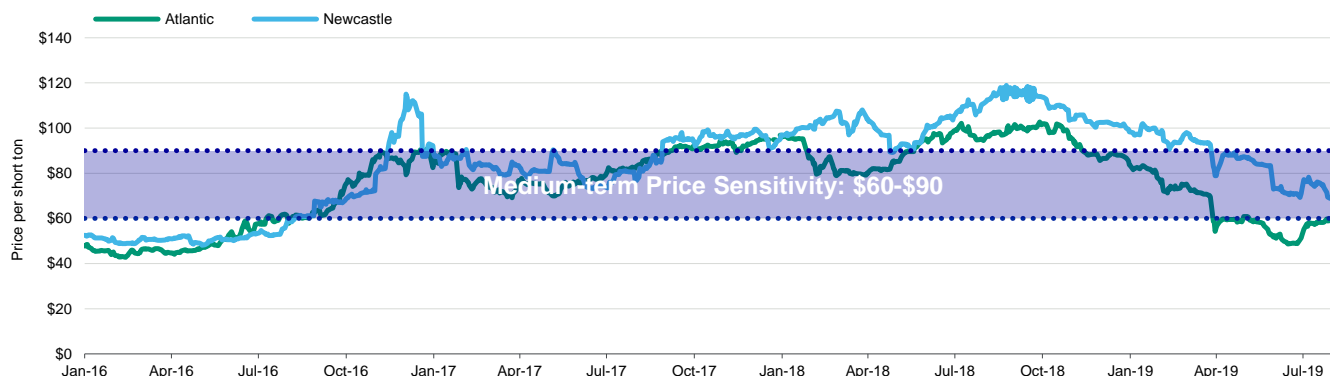
Coal – North America

Weak export prices tip outlook to negative

- » **Profitability will worsen in the next 12-18 months.** Our negative outlook for the North American coal industry reflects our expectation for weaker EBITDA in the second half of 2019 and meaningfully weaker EBITDA in 2020. The EBITDA decline is expected to be more than 3% over the next 12 months, a trigger to change our outlook to negative. A substantive decrease in export prices for thermal coal, particularly in Europe, combined with mostly open contract positions for some producers in 2020, will drive this decline. Weakness in the steel industry will also result in lower earnings for metallurgical coal operations, though pricing remains favorable compared with historical levels. A confluence of economic, environmental, and social factors also increase our concerns about the industry's longer-term demand prospects, as pressure on the industry is mounting, which makes numerous coal mines uneconomic in a reduced demand environment, especially smaller, higher cost mines that are highly vulnerable to retirement of specific coal-fired power plants.
- » **Our outlook for thermal coal is increasingly stressed as economic, environmental, and social factors weigh heavily on demand from utilities.** [Our long-term outlook for US thermal coal calls for a substantial volume reduction over the next decade](#) driven by utilities switching to natural gas and renewable energy, which still benefits from government subsidies today. However, stronger conditions in the export market over the past couple years helped prop up prices and allow [many producers to generate meaningful cash flow to fund shareholder returns](#). We expect a combination of significant retirement of coal-fired power plants in 2018, combined with a now-weakened export market, will bring more tons back into the domestic market and could drive prices lower, especially if [natural gas prices remain very low](#) and coal producers attempt to maintain production near current levels. Rated producers are well contracted through 2019, but many have substantial open positions beyond that and only a few, such as [Consol Energy](#) (B1 stable), have contracted the vast majority of their volumes for 2020. [Alliance](#) (Ba3 stable), CONSOL, [Foresight Energy](#) (B3 stable), [Murray Energy](#) (Caa1 stable), and [Wolverine Fuels](#) (Caa1 stable) are heavily concentrated in domestic thermal coal. Some producers, such as [Peabody Energy](#) (Ba3 stable), are more diverse operationally, geographically, and across coal types.

Exhibit 1

Thermal export prices drop significantly

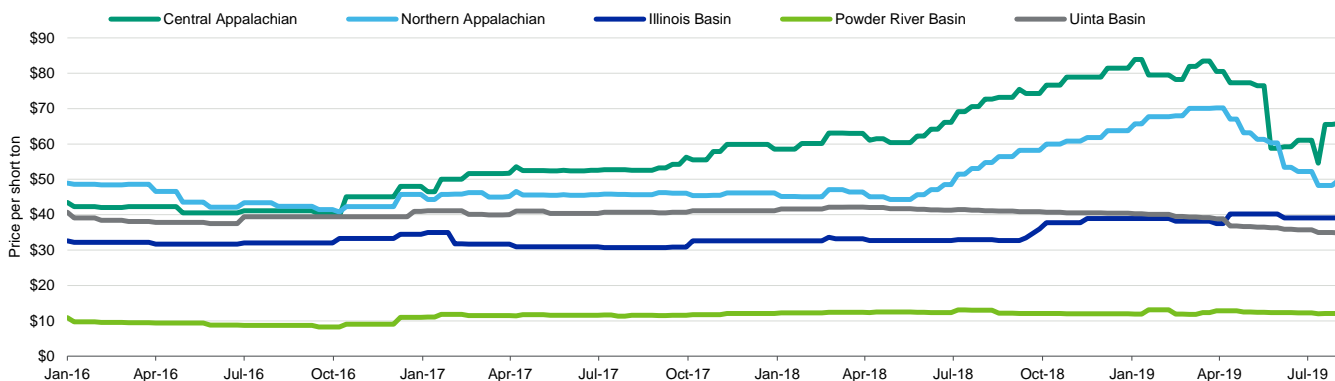


Source: Factset. Our price ranges, as well as the midpoint, represent baseline prices we use to sensitize financial performance and evaluate risk when analyzing credit conditions of companies within the sector. We will periodically review, in light of changing global GDP and supply/demand expectations, these price sensitivities to better assess the resiliency of operating and financial performance of mining companies.

- » **Our medium-term price sensitivity range for export coal are unchanged.** For Newcastle thermal coal we use a medium term price sensitivity range of \$60-\$90/metric tonne and \$110-\$170/metric ton for high-quality met coal. Our [most recent revision to the sensitivity ranges in October 2018](#) incorporated the benefit from very limited investment in new mines over the past several years. While we expected price volatility for exports and believed thermal coal prices would moderate during the next couple years, the [pace and magnitude of the decline for thermal coal in the Atlantic Basin exceeded our expectations](#). Relatively mild weather, continued emphasis on renewables, and import restrictions by China remain a downside risk for prices in the Pacific Basin. Over a longer horizon, as demand for thermal coal declines in the United States, we expect the industry will become more dependent on export thermal and met coal.

Exhibit 2

Domestic thermal prices declined over last several months



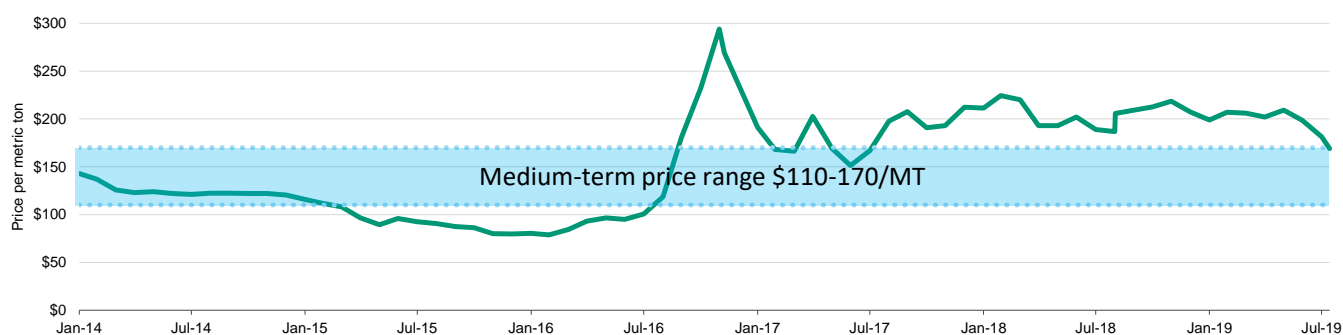
Source: EIA

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

- » **Our outlook for met coal used in steelmaking is more favorable.** Some factors contributing to recent price weakness are temporary, but end-market demand from steelmakers is weakening and escalating trade tensions increase uncertainty heading into 2020. Our [outlook for the European steel industry is negative](#) and, while our outlook for the US steel industry is stable, [steel producers' earnings will be down in 2019, with EAF producers faring better than those operating blast furnaces](#). Conditions for steelmakers in Asia are also weakening, particularly in China, where rising domestic supply of met coal and weakening demand by steelmakers are expected to pressure met coal pricing. Some met coal, like [Contura Energy](#) (B2 stable), are throttling back production a bit. Numerous miners announced acquisitions or potential expansions in met coal, including [Arch Coal](#) (Ba3 stable), Contura, CONSOL, Murray, Peabody, and [Warrior Met Coal](#) (B2 stable). Pricing remains at levels that will support reasonable earnings for producers, though somewhat lower than the figures for 2017 through early 2019. Over a longer horizon, we remain concerned that demand for metallurgical coal could tip into secular decline as the [steel industry continues to shift toward electric arc furnaces](#), which recycle scrap steel, rather than basic oxygen furnaces, which make steel from pig iron from a blast furnace, which uses raw materials including metallurgical coal.

Exhibit 3

Metallurgical coal price dips to our medium-term price range
\$/MT CFR Jingtang



Source: Metal Bulletin. Our price ranges, as well as the midpoint, represent baseline prices we use to sensitize financial performance and evaluate risk when analyzing credit conditions of companies within the sector. We will periodically review, in light of changing global GDP and supply/demand expectations, these price sensitivities to better assess the resiliency of operating and financial performance of mining companies.

Moody's related publications

Sector In-Depth

- » [FAQ on the economics of renewable energy, battery storage and fossil-fuel power plants, June 2019](#)

Outlook

- » [Thermal coal remains in secular decline, but met prices support stable outlook, May 2019](#)
- » [Outlook moves to negative on slowing end user demand, weaker steel spreads, May 2019](#)
- » [Industry performance to remain solid on favorable fundamentals, economic factors, February 2019](#)
- » [Steel-Asia 2019 outlook, November 2018](#)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

© 2019 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454